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(56) Documents cited

GB A	2116838	GB	1093320
GB A	2114509	GB	1078656
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GB	1589858	EP A1	0070701
GB	1541069	EP A1	0036158
GB	1295208		

(58) Field of search

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Selected US specifications from IPC sub-class A47C

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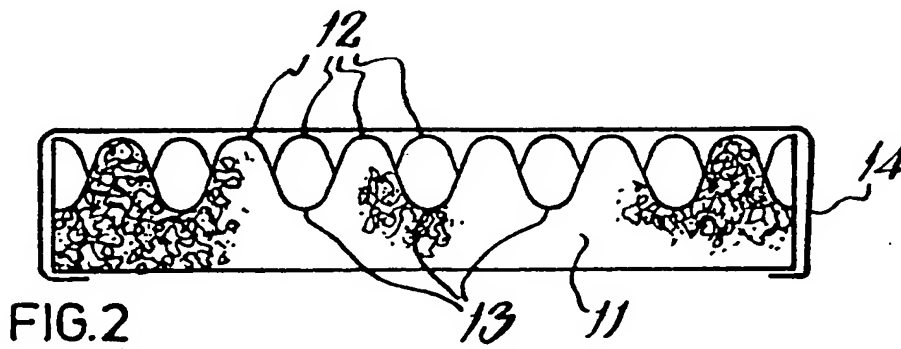
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(54) Overlay

(57) An overlay for a bed mattress or seat cushion comprising a layer of foam (11) having a sculpted upper surface providing spaced protrusions or apices (12) and covered with a fire retardant fabric (14) held in a state of tension.



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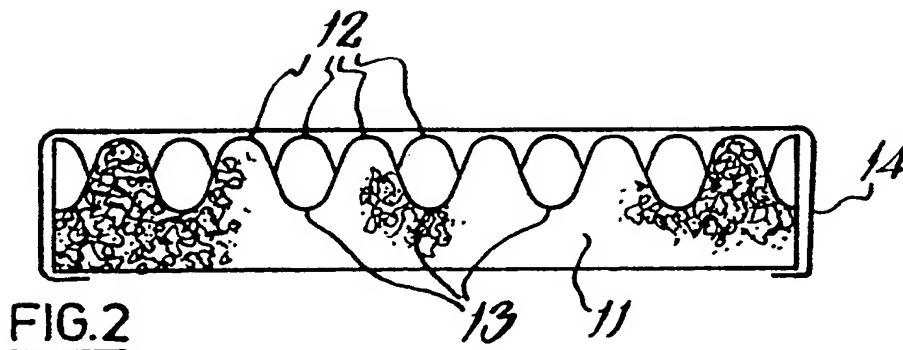
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SPECIFICATION

Overlay

This invention concerns an overlay for a bed
5 mattress or seat cushion as of a wheel-chair for
example, particularly, though by no means
exclusively, suitable for use in hospitals or similar
establishments, primarily for the prevention or relief
of the symptoms of decubitus ulcers, more
10 commonly known as 'bed-sores'.

It has been known to overlay a bed mattress with
a sheet of synthetic foamed plastics material whose
upper surface has been moulded, cut, sculpted or
otherwise formed to provide a multiplicity of
15 mutually spaced protrusions or apices which may
extend from a planar surface or be separated by
intermediate nadirs. Such an overlay, which will be
referred to hereinafter as an overlay of the kind
referred to, is efficacious in that it relieves pressure
20 on the bony prominences of the body and
encourages air circulation with attendant dispersal
of heat and moisture at the points of contact with
the body.

Overlays of the kind referred to have however not
25 been in widespread use, at least in the United
Kingdom, since they have, in the main failed to pass,
even when of the better fire retardant foams
commercially available, appropriate test
specifications such as Crown Supplies Fire Test
30 Specification No. 5 (Crib No. 5) of November 1982.

The present invention is based on the discovery
that if an overlay of the kind referred to is covered
with a fire retardant fabric which is in a state of
tension the combination will, in fact, pass such tests.

35 Thus according to the present invention there is
provided an overlay of the kind referred to having a
cover of flame retardant fabric tensioned thereover.

The cover may take the form of a close-fitting bag-
like enclosure encapsulating the overlay or a fitted
40 sheet having elasticated corners.

The invention will be further apparent from the
following description with reference to the figures of
the accompanying drawing, which show, by way of
example only, one form of the mattress overlay
45 embodying the invention.

Of the drawing:—

Figure 1 shows a perspective view of the overlay;
and

50 Figure 2 shows a cross-section through the
overlay on the line II—II on Figure 1

Referring now to the drawing it will be seen that
the overlay, generally indicated at 10 is of
rectangular shape suited to be positioned on a
standard single hospital bed having a length 1 of
55 182 cm or thereabouts and a width w of 76 cm or
thereabouts.

The overlay is readily portable being light in
weight and easily rolled.

60 The overlay comprises in combination a pad 11 of
foamed synthetic plastics material such as of
polyurethane and preferably incorporating flame
retardant additives.

The upper surface of the pad 11 is sculpted to
provide a multiplicity of protrusions or apices 12
65 mutually spaced and separated from one another by
intermediate nadirs 13. Typically the overall
thickness of the pad 11 may be 7.5 cm or
thereabouts and the depth of the nadirs from the
upper extremities of the apices 3.75 cm or
70 thereabouts.

The pad 11 is provided with a cover 14 in the form
of a fitted sheet whose general shape is that of a
shallow rectangular box lacking one of its major
faces, and sized such that when fitted in position on
75 and over the pad 11 its upper surface is tensioned
over the apices 12. This effect can be enhanced and
ensured by the provision of elasticated corners—as
well known from conventional bedding.

80 The cover 14 is fabricated from a flame retardant
fabric capable of laundering without immediate loss
of its flame retardant properties.

The pad 11 can, of course, be cleaned and
sterilized a number of times by autoclaving.

85 It will be appreciated that it is not intended to limit
the invention to the above example only, many
variations, such as might readily occur to one skilled
in the art, being possible, without departing from
the scope thereof.

90 The cover may take the form of a closely fitting
bag-like enclosure which becomes tensioned on
account of the resilience of the overlay.

Overlays of smaller size may be provided suitable
for use over seat cushions such as those of wheel-
chairs for example.

95 CLAIMS

1. An overlay of the kind referred to having a cover
of flame retardant fabric tensioned thereover.

2. An overlay according to claim 1, wherein said
100 cover is in the form of a fitted sheet sized to ensure
that it is tensioned over the protrusions or apices of
the overlay.

3. An overlay according to claim 2, wherein the
fitted sheet has elasticated corners.

105 4. An overlay according to any preceding claim
sized to fit on a bed mattress.

5. An overlay according to any one of claims 1 to
3, sized to fit on a seat cushion.

110 6. An overlay of the kind referred to substantially
as described herein with reference to the
accompanying drawings.